

CLAIMS

1. A raw material composition for preparing a sintered body of aluminum titanate, the composition comprising:
 - (i) 100 parts by weight of a mixture comprising 40 to 50 mol% of TiO_2 and 60 to 50 mol% of Al_2O_3 ,
 - (ii) 1 to 10 parts by weight of alkali feldspar represented by the formula: $(\text{Na}_x\text{K}_{1-x})\text{AlSi}_3\text{O}_8$ ($0 \leq x \leq 1$), and
 - (iii) 1 to 10 parts by weight of at least one Mg-containing component selected from the group consisting of a Mg-containing oxide with spinel structure, MgCO_3 and MgO .
2. The raw material composition for preparing a sintered body of aluminum titanate according to claim 1, wherein the alkali feldspar has such a composition that x in the formula: $(\text{Na}_x\text{K}_{1-x})\text{AlSi}_3\text{O}_8$ is in the range of $0.1 \leq x \leq 1$.
3. The raw material composition for preparing a sintered body of aluminum titanate according to claim 1 or 2, wherein the molar ratio of Si in the alkali feldspar to Mg in the Mg-containing component is in the range of Si:Mg = 0.9:1 to 1.1:1.
4. A process for preparing a sintered body of aluminum titanate, the process comprising sintering a formed product at a temperature of 1300 to 1700°C
the formed product being prepared from a raw material composition for preparing a sintered body of aluminum titanate comprising:

(i) 100 parts by weight of a mixture comprising 40 to 50 mol% of TiO_2 and 60 to 50 mol% of Al_2O_3 ,

(ii) 1 to 10 parts by weight of an alkali feldspar represented by the formula: $(\text{Na}_x\text{K}_{1-x})\text{AlSi}_3\text{O}_8$ ($0 \leq x \leq 1$), and

5 (iii) 1 to 10 parts by weight of at least one Mg-containing component selected from the group consisting of a Mg-containing oxide with spinel structure, MgCO_3 and MgO .

5. A sintered body of aluminum titanate which is obtainable by the process of claim 4.